



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/612,655	07/02/2003	Marshall Thomas DePue	10030189-1	5451

7590 09/01/2005
AGILENT TECHNOLOGIES, INC.
Legal Department, DL429
Intellectual Property Administration
P.O. Box 7599
Loveland, CO 80537-0599

EXAMINER

BODDIE, WILLIAM

ART UNIT	PAPER NUMBER
----------	--------------

2674

DATE MAILED: 09/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/612,655

Applicant(s)

DEPUE ET AL.

Examiner

William Boddie

Art Unit

2674

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 July 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 6/20/05
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-9, 12, and 14-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Derocher et al. (US 6,476,795) in view of Koripella et al. (US 6,387,559).

With respect to claim 1, Derocher discloses, a wireless optical navigation device (fig. 2) comprising: an optical position tracking system (col. 3, lines 40-43); a transmitter electrically coupled to said optical position tracking system (52 in fig. 2).

Derocher does not expressly disclose a micro fuel cell electrically coupled to said transmitter and said optical position tracking system, said micro fuel cell capable of providing electrical power for said optical position tracking system and said transmitter.

Koripella discloses a micro fuel cell (fig. 3) electrically capable of providing electrical power (col. 6, lines 1-4).

Derocher and Koripella are analogous art because they are directed at a similar problem solving area, namely powering handheld electronic devices (Koripella, 60 in fig. 3).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use the portable device fuel cell taught by Koripella on the wireless optical mouse disclosed by Derocher.

The motivation for doing so would have been to lengthen the battery life of the device.

Therefore it would have been obvious to combine Koripella with Derocher for the benefit of longer battery life to obtain the invention as specified in claim 1.

With respect to claim 2, Derocher discloses, wherein said transmitter is an infrared type transmitter (col. 3, lines 15-18).

With respect to claim 3, Koripella discloses wherein said micro fuel cell is a direct methanol micro fuel cell (col. 1, lines 5-10).

With respect to claim 4, Koripella discloses wherein said micro fuel cell is a water recycling micro fuel cell (col. 4, lines 12-15).

With respect to claim 5, Koripella discloses wherein said micro fuel cell comprises a MEMS pump (40 in fig. 3).

With respect to claim 6, Koripella discloses wherein said micro fuel cell comprises microchannel structures for waste gas removal (col. 6, lines 6-9 and 44 in fig. 3).

With respect to claim 7, Koripella discloses wherein said micro fuel cell comprises microchannel structures for water recovery (col. 2, lines 23-25 and col. 4, lines 3-8).

With respect to claim 8, Koripella discloses the apparatus further comprising a replaceable fuel cartridge (35 in fig. 1 and col. 4, lines 14-18).

With respect to claim 9, Koripella discloses wherein said replaceable fuel cartridge contains methanol (col. 4, lines 14-18).

With respect to claim 12, Koripella discloses the apparatus further comprising a rechargeable battery that is electrically coupled to said micro fuel cell and said optical position tracking system (64 in fig. 3).

With respect to claim 14-20, the method for making a device of claim 1 is inherent. Therefore claim 14 and all of its identical dependent claims (claims 16-20) are rejected on the same merits as shown above.

3. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Derocher in view of Koripella as applied to claim 8 above, and further in view of Hirsch et al. (US 6,924,055).

Derocher and Koripella do not expressly disclose, wherein said replaceable fuel cartridge includes a fuel membrane.

Hirsch discloses wherein said replaceable fuel cartridge includes a fuel membrane (50 in fig. 2, and col. 6, last paragraph).

Derocher, Koripella, and Hirsh are all analogous art because they are directed to a similar problem solving area, namely powering portable devices.

At the time of the invention it would have been obvious to include the fuel cell powered mouse taught by Derocher and Koripella with a membrane in the fuel cartridge.

The motivation for doing so would have been in order to encourage flow into the anode chamber and to limit backflow of fuel from the anode chamber to the fuel delivery cartridge (Hirsch, col. 6, lines 50-56).

Therefore it would have been obvious to combine Hirsch with Derocher and Koripella for the benefit of encouraging flow and limiting backflow to obtain the invention as specified in claim 10.

4. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Derocher in view of Koripella as applied to claim 1 above, and further in view of Peng (US 6,686,903).

Derocher and Koripella do not expressly disclose, an apparatus further comprising a capacitor that is electrically coupled to said micro fuel cell and said optical position tracking system.

Peng discloses, an apparatus further comprising a capacitor that is electrically coupled to said micro fuel cell and said optical position tracking system (209 in fig. 2).

Derocher, Koripella, and Peng are all analogous art because they are directed to a similar problem solving area, namely powering handheld devices.

At the time of the invention it would have been obvious to include a capacitor in the circuitry of the fuel cell powered mouse taught by Derocher and Koripella.

The motivation for doing so would have been to regulate the output voltage (Peng, col. 3, lines 43-45).

Therefore, it would have been obvious to combine Peng with Koripella and Derocher for the benefit of regulating the voltage to obtain the invention as specified in claim 11.

5. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Derocher in view of Koripella as applied to claim 1 above, and further in view of Freathy et al. (US 6,774,797).

Derocher and Koripella do not expressly disclose, wherein said battery is a polymer lithium battery.

Freathy discloses, wherein said battery is a polymer lithium battery. (col. 4, lines 41-43).

Derocher, Koripella, and Freathy are all analogous art because they are directed to a similar problem solving area, namely powering compact devices.

At the time of the invention it would have been obvious to use a polymer lithium battery as the rechargeable battery type.

The motivation for doing so would have been that polymer lithium batteries are typically lighter than other batteries and also allow for specific shaping of the battery to a desired form.

Therefore, it would have been obvious to combine Freathy with Koripella and Derocher for the benefit of less weight to obtain the invention as specified in claim 13.

Conclusion

Art Unit: 2674


6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Will Boddie whose telephone number is (571) 272-0666. The examiner can normally be reached on Monday through Friday, 8:00 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Edouard can be reached on (571) 272-7603. Please note the new Central Fax Number 571-273-8300. Faxes sent to the old number, 703-872-9306, will be routed to the new number until September 15, 2005.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Wlb

8-11/05


REGINA LIANG
PRIMARY EXAMINER